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1 **INTEGRATED FREQUENCY AND AWARD REDEMPTION**
2 **PROGRAM FOR INSTALLMENT BASED RECEIVABLES**
3 **BEHAVIOR MODIFICATION AND CUSTOMER LOYALTY**
 MANAGEMENT

4 **TECHNICAL FIELD**

5 The present invention pertains to a loyalty marketing and behavior
6 modification program based on installment and time-delayed payment behavior. The
7 invention integrates automated transaction processing systems with online customer
8 service systems to operate and maintain a loyalty program based on awards,
9 redemption, and multi-channel customer communications.

10 **BACKGROUND OF THE INVENTION**

11 Frequency programs have been developed by various industries to promote
12 customer loyalty. The most well-known include paper-based programs for purchases
13 made at retail merchants, various frequent flyer programs in which travelers earn
14 points or miles redeemable for travel on the same or affiliated airlines, consumer
15 credit programs in which points redeemable for merchandise or services are earned
16 for each credit line draw, and online programs which reward enrolled members
17 with redeemable points for visiting or making purchases at Internet Web sites.

18 In mileage programs, travelers earn points, a special reward currency often
19 referred to as "miles," in exchange for booking and checking in for flights. The
20 amount of the reward often depends on the distance traveled. These "Mileage"
21 programs have begun to recruit companies from other sectors of the travel and
22 hospitality industries to award travel mileage in exchange for hotel room rentals,
23 auto rentals, meal service, and various other services. When a traveler has

1 accumulated a sufficient number of mileage points, he may redeem these points
2 for an award chosen from a specific list of awards specified by the program.
3 Thus, for example, the traveler may redeem the points for a free flight ticket, a
4 discount on hotel accommodations, or a free rental car. In order to redeem the
5 points, the traveler generally needs to request a certificate, and use the issued
6 certificate as payment for the free travel.

7 According to another type of frequency and award program, a credit
8 instrument is provided and credit points are accumulated instead of mileage points.
9 In such programs, bonus points are awarded by using a formula in which a price
10 paid for merchandise is a parameter. Thus, upon each purchase a certain number
11 of bonus points are awarded, which translate to a currency credit amount.
12 According to these programs, the customer receives a credit instrument, which may
13 be acceptable by many enrolled retailers, so that the selection of prizes available
14 is enhanced.

15 A third type of frequency and award program rewards consumers for
16 making purchases from a merchant. Under such a program, an award of
17 redeemable points is calculated by means of a formula in which the price paid for
18 merchandise is a parameter. Points accumulate in the form of either paper
19 certificates, or in the case of online merchants, are automatically accrued in an
20 account established for the purpose. Consumers may browse a catalog of
21 redemption options and place orders for items by redeeming all or some of their
22 accrued points. In the case of paper-based programs, the consumer mails an order
23 form to the merchant or program manager requesting the redemption. In an online

1 program, the consumer may browse an online catalog and select items for
2 redemption electronically.

3 4 **BRIEF DESCRIPTION OF THE DRAWINGS**

5 Preferred embodiments of the invention are described below with reference
6 to the accompanying drawings, which are briefly described below.

7 Figure 1 is a flow chart depicting one embodiment of an overall
8 process contemplated by the present invention;

9 Figure 2 depicts an embodiment showing the relationship of various
10 networked computer systems and databases that may provide
11 the operational platform for the preferred embodiment of the
12 present invention;

13 Figure 3 is a flow chart depicting an embodiment of a process by
14 which Members may be enrolled in a program contemplated
15 by the present invention;

16 Figure 4 is a flow chart depicting an example of a process that may
17 be used to generate recurring customer account statements;

18 Figure 5 is a flow chart depicting one embodiment of a transaction
19 processing portion which may be utilized as part of the
20 present invention;

21 Figure 6 is a flow chart depicting one embodiment of how the
22 calculation of awards may be accomplished;
23

Figure 7 is a flow chart depicting one embodiment of an online bill payment process which may be utilized as part of this invention;

Figure 8 is a flow chart depicting one embodiment of a means of online access to the program's online features;

Figure 9 is a flow chart depicting one example of a process by which Members accessing the program online may select various functions of the program;

Figure 10 is an exemplary flow chart depicting a process by which newly enrolled Members may activate their accounts;

Figure 11 is a flow chart depicting one embodiment of a process by which Members may activate individual installment obligations that have been appended to their existing Membership accounts;

Figure 12 is a flow chart depicting an embodiment of a process by which Members may query the program for the current status of their accounts;

Figure 13 is a flow chart depicting an embodiment of a process by which registered Members may be authenticated to gain secure access to the online features of the program;

Figure 14 is a flow chart depicting an embodiment of a process by which registered program Members may browse the program's

1 catalog of redemption products and services, also known as
2 prizes;

3 Figure 15 is a flow chart depicting an embodiment of a process by
4 which registered program Members may redeem their rewards
5 points for products listed in the redemption catalog;

6 Figure 16 is a screen snapshot of an online electronic bill payment
7 center home page which may be sent in the form of a
8 hypertext document by the Member Access Server Computer
9 to the Member Personal Computer in Figure 7;

10 Figure 17 is a screen snapshot of an online electronic bill payment form
11 which may be utilized to be sent in the form of a hypertext
12 document by the Member Access Server Computer to the
13 Member Personal Computer in Figure 7;

14 Figure 18 is a screen snapshot of an error message document sent in
15 the form of a hypertext document by the Member Access
16 Server Computer to the Member Personal Computer in Figure
17 7;

18 Figure 19 is a screen snapshot of an embodiment of a document which
19 indicates successful online electronic payment with a
20 subsequent award of points sent in the form of a hypertext
21 document by the Member Access Server Computer to the
22 Member Personal Computer in Figure 7;
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Figure 20 is a screen snapshot of the main home page of a timely payment rewards program sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 9;

Figure 21 is a screen snapshot of an embodiment of a new Member account activation instructions document sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 10;

Figure 22 is a screen snapshot of an embodiment of a Member Login form sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 13;

Figure 23 is a screen snapshot of an embodiment of a sub-account list document sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 11;

Figure 24 is a screen snapshot of an embodiment of a sub-account activation form sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 11;

Figure 25 is a screen snapshot of an embodiment of a sub-account activation error document sent in the form of a hypertext

document by the Member Access Server Computer to the Member Personal Computer in Figure 11;

Figure 26 is a screen snapshot of an embodiment of a Member account status report document sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 12;

Figure 27 is a screen snapshot of an embodiment of a Member logout confirmation form sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 13;

Figure 28 is a screen snapshot of an embodiment of a login error report document sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 13;

Figure 29 is a screen snapshot of an embodiment of a Member redemption program home page document sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 14;

Figure 30 is a screen snapshot of an embodiment of a redemption catalog product list document sent in the form of a hypertext document by the Member Access Server Computer to the Member Personal Computer in Figure 14;

1 Figure 31 is a screen snapshot of an embodiment of a redemption
2 product detail document sent in the form of a hypertext
3 document by the Member Access Server Computer to the
4 Member Personal Computer in Figure 15;

5 Figure 32 is a screen snapshot of an alternative view of an embodiment
6 of a redemption product detail document sent in the form of
7 a hypertext document by the Member Access Server Computer
8 to the Member Personal Computer in Figure 15;

9 Figure 33 is a screen snapshot of an embodiment of a redemption order
10 confirmation document sent in the form of a hypertext
11 document by the Member Access Server Computer to the
12 Member Personal Computer in Figure 15;

13 Figure 34 is a screen snapshot of an embodiment of a redemption order
14 error document sent in the form of a hypertext document by
15 the Member Access Server Computer to the Member Personal
16 Computer in Figure 15;

17 Figure 35 is an example of recurring statement of account document
18 printed and sent to a Member in Figure 4; and

19 Figure 36 illustrates three flow charts of embodiments illustrating the
20 processing of payments made and points awarded or accrued.
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1 **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

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3 Reference will now be made to a preferred embodiment of the

4 Applicants' invention. One exemplary implementation is described below and

5 depicted with reference to the drawings comprising one embodiment of the

6 invention, which may be used on a public network such as the internet.

7 While the invention is described via a preferred embodiment, it is understood

8 that the description is not intended to limit the invention to this embodiment,

9 but is intended to cover equivalents and modifications such as are included

10 within the scope of the appended claims.

11

12 Further, due to the nature of the level of skill in the art, there

13 may be, without limitation, various menu items, explanatory text, buttons,

14 menus, routines, subroutines, source code, display configurations which are

15 known or may readily be duplicated by known programming means by one

16 skilled in the art, and they will not therefore be described in significant

17 detail.

18 While the preferred embodiment is described and used in connection

19 with the internet and the world wide web, the term communications network

20 or public communications network as used herein is meant in its broadest

21 sense to include these and all other current and future communication

22 networks, including public packet switched communications networks, and the

23 current or future internet.

The term memory areas as used herein is intended to cover any area with temporary or permanent memory capabilities, including any memory storage mediums, such as a computer hard drives, disks, data storage devices, and others as set forth below. The databases described below would typically be stored in a memory area.

For purposes of this disclosure, it is understood that memory generally refers to a data storage device resident within or associated with a computer, such as a random access memory (RAM). As utilized herein, memory is intended to refer to any form of storage medium associated with a computer, such as a data storage device, and including hard disk drives (HDDs), semiconductor memories and addressable storage spaces present within a processing unit or other internal storage devices that are used to execute instructions and/or store data and addresses, or any other form of memory as presently understood within the art, or which may later be developed. Furthermore, it is understood that memory can be physically subdivided into units such as a first memory area, a second memory area, and a third memory area. Such units are not necessarily physically associated, but can be associated via the ability to address and/or locate such memory areas.

The typical hardware includes a processor or microprocessor; a hard disk drive; screen displays; input devices such as a keyboard and/or

1 a mouse; and other associate components which are well understood and
2 known in the art.

3 Additionally, the term computer generally includes hardware
4 such as one or more processors, or microprocessor; one or more data storage
5 devices, such as a hard disk drive ("HDD"); memory, such as random access
6 memory ("RAM"); and an interface device, such as a display, a keyboard
7 and/or a mouse.

8 The various components shown or described herein for any specific
9 application of this invention can be varied or altered as anticipated by this
10 invention and the practice of a specific application or embodiment of any element
11 may already be widely known or used in the art or by persons skilled in the art
12 or science; therefore, each will not be discussed in significant detail.

13 The terms "a", "an", and "the" as used in the claims herein are used
14 in conformance with long-standing claim drafting practice and not in a limiting
15 way. Unless specifically set forth herein, the terms "a", "an", and "the" are not
16 limited to one of such elements, but instead mean "at least one".

17 The program according to the present invention will be described with
18 reference to FIGS. 1-36. All numerical identifiers assigned to the drawings or to
19 elements of the drawings have been assigned arbitrarily as unique identifiers and
20 neither imply nor specify any specific sequence of operation.

21 Figure 1 is a flowchart outlining the general operation of the preferred
22 embodiment of the program described by the present invention. In Figure 1, step
23 10 indicates that an Entity, either in the form of an individual person or in the

1 form of a business entity, establishes a credit relationship with a lender or service
2 provider such as a bank or a public utility company. Hereinafter, a lender or
3 service provider shall be known as a Provider or Creditor. Figure 1, step 20
4 indicates that the Creditor enrolls the entity in a program that rewards timely
5 payment. Hereinafter, an enrolled Entity shall be known as a Member of the
6 program, or simply as a Member, and the relationship between a Creditor and a
7 Member shall be known as an Obligation.

8 In Figure 1, at step 30, the Creditor furnishes the Member with a statement
9 or payment coupon specifying the date and amount of the next installment
10 payment due to the Creditor. Figure 1, at step 40 specifies that the program
11 furnishes the Member with an additional statement, an example of which is
12 illustrated in Figure 35, indicating the current balance of rewards points earned up
13 to the date on which the statement is issued, and urging the Member to make the
14 next payment on, or prior to the due date in order to earn additional reward
15 points. Rewards points shall be known hereinafter as Points. The statement may
16 also offer the Member additional bonus Points for other desired credit performance
17 behaviors, such as using an electronic payment system, or for making a specific
18 number of successive on-time payments, or for other reasons not yet identified.

19 In Figure 1, at step 50, the Member makes a scheduled installment payment
20 to the Creditor, which the Creditor processes in step 60 to properly credit the
21 Member's Obligation account. In step 70, the payment is analyzed to determine
22 whether it was received by the Creditor on or prior to the scheduled due date. If
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not, the cycle begins again with step 30. If the payment has been received on or before the due date, Points are awarded to the Member, as shown in step 80.

In Figure 1, at step 90, the Member activates his account by providing credentials issued by the Creditor at the time of enrollment. Event or step 90 may occur at any point in the process after step 20 and before step 100.

Figure 1, step 100 outlines a process by which a Member may redeem accrued Points for products or services listed in a catalog of such opportunities assembled for the program, known hereinafter as the Redemption Catalog. In step 100, the Member's Points balance is reduced by the number of Points redeemed for any particular item selected from the Redemption Catalog, as reflected in event or step 110.

With reference to Figure 2 a timely payment rewards system in accordance with the present invention may, but need not, include any one or more of the following: an Installment Payment Processing Computer 205 operated by the Creditor accepting scheduled payments; a Member Computer 215 operated by a Member who wishes to make payments or manage his or her Membership account; an Incentive Reward Processing Computer 220 operated by the Creditor or a third-party service Creditor to calculate rewards and update Member accounts; a Member Access Server Computer 225 operated by the Creditor or a third-party service Creditor to communicate with the Member by means of electronic documents such as HTML-based Web pages; and a Fulfillment House Computer 210 operated by the Creditor or by a third-party program service Creditor or by a third-party merchant to process orders placed by the Member from the Redemption Catalog.

1 All these computers may be connected by a data communications network
2 200, such as the Internet, by an intranet, or any other type of network. The
3 Incentive Reward Processing Computer 220 and the Member Access Server
4 Computer 225, may share access to any one or more of the following: a Member
5 Accounts Database 230; an Awards Rules Database 235; a Redemption Catalog
6 Database 240; a Member Transaction History Database 245; and Analytical Data
7 Mart Database 250; and/or a Redemption Order Database 255.

8 Figure 3 depicts Member enrollment, a process that may, but need not, be
9 executed on the Incentive Reward Processing Computer shown in Figure 2, item
10 220. Figure 3, step 317 awaits an Account Enrollment Request, 315, to establish
11 a new Member account in the program. In the preferred embodiment an Account
12 Enrollment Request, 315, may originate from any of several sources, such as an
13 enrollments file, 300, a sequential file of enrollment requests delivered on any
14 electronic medium, from operator entry 305, a direct operator entry through an
15 interactive user interface, or from network data transmission 310, a data
16 transmission delivered over a network such as the Internet or even an intranet.

17 In an alternative embodiment, an Account Enrollment Request, 315 could
18 be obtained from other sources, such as a smart card reader or a text scanner, or
19 any other type of data entry device. If the result of step 320 in Figure 3 is
20 negative, the process returns to step 317. Thus, in a continuous loop, steps 317
21 and 320 await an enrollment request.

22 If the result of Figure 3, step 320 is positive, indicating that an enrollment
23 request has been received, step 325 accepts the request. In Figure 3, step 330 the

1 Member Accounts Database 230 is queried to determine whether the Member has
2 been enrolled previously in the program. If the Member is not found in the
3 Member Accounts Database 230, the new Member is added to the Member
4 Accounts Database, 230, in step 340. In step 340, an Enrollment Welcome
5 Message 343 is also entered, including the Member's program credentials, in the
6 form of a unique Member Username and a Password.

7 In the preferred embodiment of the disclosed invention, this message may
8 be delivered to the newly enrolled Member in any form, including electronic mail,
9 postal mail, or any other form of private, personal communication. The new
10 Obligation, an element of the Account Enrollment Request, 315, is then added in
11 step 345 to that Member account as a sub-account. If the Member is found by
12 step 335 to exist in the Member Accounts Database, then the new Obligation is
13 added to that existing Member account. Upon completion of the enrollment, the
14 process resumes with step 317 to await the next Account Enrollment Request, 315.

15 Figure 4 depicts issuance of account statements, a process that may, but
16 need not, execute on the Incentive Reward Processing Computer shown in Figure
17 2, item 220. The process starts at step 365 when invoked by some external agent
18 such as a system operator. In step 367, the first Member account in the Member
19 Accounts Database 230 is read. The account is analyzed in step 370 to determine
20 whether the Member is due to receive an account statement. If the result of step
21 370 is negative, the process proceeds to step 400 to determine whether it has
22 stepped through all accounts whose Members may be due to receive statements.
23 If the result of step 400 is negative, the process continues in step 407 by reading

1 the next sequential Member account record. If the result of step 400 is positive,
2 meaning that the final account has been processed, the process terminates at step
3 405.

4 If the result of Figure 4, step 370 is positive the appropriate award rules
5 are located and retrieved in step 375 from the Awards Rules Database 235. The
6 data contained in the Member record are then combined with the appropriate
7 awards rules to formulate a Member Account Statement, 380, which is then printed
8 in step 385 to produce a document, 390, of the form depicted in generalized form
9 in Figure 35. In an alternative to the preferred embodiment, the contents of the
10 statement may be forwarded to another device or to a third-party service bureau
11 to be printed and delivered to the Member. After printing the statement, or
12 causing scheduling an external system to print the statement, the Member Account
13 is updated Figure 4, step 395 to reflect the next scheduled statement date. The
14 process repeats as necessary, as determined by checking for the end of the
15 sequence of Member accounts in step 400.

16 Figure 5 depicts the processing of payment transactions to qualify them for
17 Points awards and to calculate those awards, a process that may be executed on
18 the Incentive Reward Processing Computer shown in Figure 2, as item 220. The
19 process starts at step 415 when invoked by some external agent such as a system
20 operator. In step 417, the first payment transaction in a batch of transactions,
21 410, is read.

22 In an alternative embodiment of the present invention, payment transactions
23 may be received by any of several means, such as interactive entry by an

1 operator, a text scanner, a smart card reader, or transmission from another
2 computer system over a network such as the Internet. The process in step 417
3 stores the Payment Transaction Detail, 445, in the system memory pending further
4 processing. In Figure 5, step 420, the process evaluates whether the payment paid
5 on time, that is, on or before the scheduled due date. If the result of step 420
6 is negative, the process proceeds to step 430, where it records the transaction in
7 the Member Transaction History Database 245.

8 If the result of step 420 is positive, the process proceeds to A and returns
9 at B from a sub-process described below in which the actual Points award is
10 calculated. After calculating the Points award, in step 425 the process updates the
11 Member account in the Member Accounts Database 230, then proceeds to step 430
12 where it records the payment transaction in the Member Transaction History
13 Database 245.

14 After completing Figure 5, step 430, the Incentive Reward Processing
15 Computer 220 determines whether it has reached the end of the current batch of
16 payment transactions in step 435. If the result of step 435 is positive, the process
17 terminates in step 440. If the result of step 435 is negative, the next transaction
18 is read in step 437 and the process repeats, beginning with step 420 until the
19 entire transaction batch 410 has been exhausted.

20 With reference to Figure 6, after receiving a request from a process by
21 entry point A, a Points award is calculated by reading the Payment Transaction
22 Detail 445 in step 450. The process in step 455, searches the Member Accounts
23 Database for the Member identified in the Payment Transaction Detail. If the

1 result of step 460 is negative, the error is logged by step 465 in the Error Log
2 Database 470. If the result of step 460 is positive, the process in step 475
3 retrieves the awards rules from the Awards Rules Database 235. In step 480 the
4 process evaluates whether the appropriate awards rules were found. If the result
5 of step 480 is negative, the process proceeds to step 490, which records the error
6 in the Error Log Database 470. If the result of step 480 is positive, the award
7 is calculated in step 485 based on the Payment Transaction Detail 445, the
8 Member account, and the appropriate awards rules. The process then returns to
9 the superior process from which it was invoked by means of reference B.

10 Figure 36 depicts examples of three rules by which Points may be awarded
11 in the program. In step 1020, a Points award is calculated by extracting the
12 necessary details, 1010, from the Payment, 1000 and applying a mathematical
13 function based on the total amount of the payment and the number of Points to
14 be awarded per unit of currency paid. The specific constants required to evaluate
15 this expression would be stored as elements of a Rule Record in the Awards
16 Rules Database (Figure 2, item 235).

17 Figure 36, step 1070, a Points award is calculated by extracting the
18 necessary details, 1050 and 1060, from the Payment, 1000 and applying a
19 mathematical function based on the number of consecutive on-time payments
20 received and the specified number of Points to be awarded for consecutive
21 payment performance. The specific constants required to evaluate this expression
22 would be stored as elements of a Rule Record in the Awards Rules Database
23 (Figure 2, item 235).

1 In Figure 36, step 1120, a Points award is calculated by extracting the
2 necessary details, 1100 and 1110, from the Payment, 1000 and applying a
3 mathematical function based on the specified number of Points to be awarded for
4 payments made electronically, such as by ACH or through an online bill payment
5 system. The specific constants required to evaluate this expression would be
6 stored as elements of a Rule Record in the Awards Rules Database (Figure 2, item
7 235).

8 The results of all three Points Awards, as depicted by Figure 36, steps
9 1030, 1080, and 1130, could be awarded individually or in any combination.
10 Thus, a single payment could trigger and combine the results of an arbitrary
11 number of Points awards, as determined by the rules stored in the Awards Rules
12 Database (Figure 2, item 235).

13 In Figure 7, step 495 the Member Access Server Computer (Figure 2, item
14 225) sends a bill payment service home page as shown in Figure 16, in the form
15 of a hypertext document, to the Member Personal Computer (Figure 2, item 215).
16 In an alternative embodiment of the present invention, a user interface similar to
17 that depicted in Figure 16 and delivered to the Member Personal Computer 215
18 could take the form of an application program that runs directly on the Member
19 Personal Computer instead of a hypertext document presented by a Web browser
20 or other hypertext display application. A person skilled in the art will understand
21 that the specific technology employed to present the options and input fields on
22 this and all subsequent user interface elements presented as components of the
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disclosed invention may change in accordance with advances in networked communications systems.

At Figure 7, step 500 the Member, connecting to the Member Access Server Computer (Figure 2, item 225) from N, may select the Bill Payment option. If this option is selected, the Member Access Server Computer (Figure 2, item 225) checks the Member's authentication status at step 501 by reading the Member Session State 502. In step 503, the process evaluates whether the Member is authenticated. If the result of step 503 is negative, the process sends the Member an error page (step 504) before returning them to the Bill Payment Service Home Page displayed by step 495. If the result of step 503 is positive, the Member Access Server Computer (Figure 2, item 225) in step 505 sends the Electronic Bill Payment Form depicted in Figure 17, in the form of a hypertext document or a programmed application interface, to the Member Personal Computer (Figure 2, item 215).

In Figure 7, step 510, the Installment Payment Processing Computer (Figure 2, item 205) processes the payment submitted in 505, updating the Member's Obligation account within the Creditor's accounts receivable system, an external process whose details are not germane to the present invention and is not detailed here. A person skilled in the art will understand that various systems of varying complexity are used by Creditors to process accounts receivables. Step 515 evaluates whether the processing performed in step 505 is successful. If the result of step 515 is negative, the Member Access Server Computer (Figure 2, item 225) sends an error notification page, as depicted in Figure 18, in the form of a

hypertext document or as a programmed application interface, to the Member Personal Computer (Figure 2, item 215). If the result of step 515 is positive, the Payment Transaction Detail, 445, is extracted from the payment in step 525. The process calls and returns from the process depicted in Figure 6, by way of connection points A and B respectively, the sub-process described above with reference to Figure 6, in which an award of Points is calculated.

After calculating the Points award, the process continues at Figure 7, step 535 where it evaluates whether the calculation of the Points award succeeded. If the result of step 535 is negative, the process returns to step 495. If the result of step 535 is positive, the Member Accounts Database, 230, is updated at step 540. Next, in step 545 the Points award transaction is recorded in the Member Transaction History Database, 245. Finally, the Member Access Server Computer (Figure 2, item 225) sends a page, as depicted in Figure 19, in the form of a hypertext document or a programmed application interface, to the Member Personal Computer (Figure 2, item 215), indicating that the payment was processed successfully and reporting the number of Points awarded, if any. After viewing this page, the Member returns to the Bill Payment Service Home Page (Figure 16) displayed by step 495.

If the Member selects the Exit option from the Bill Payment Service Home Page (Figure 16) , as determined in Figure 7, step 555, then the dialog between the Member Personal Computer (Figure 2, item 215) and the Member Access Server Computer (Figure 2, item 225) terminates and exits at step 560.

With reference to Figure 8, a Member using a Member Personal Computer (Figure 2, item 215) obtains access to the Member Access Server Computer (Figure 2, item 225) by means of a data communications network, such as the Internet. The Member Personal Computer connects to the communications network, 575, either through an On-line Service Creditor, 565, or through an Internet Service Creditor, 570. Once connected to the network, Members communicate with processes executing on the Member Access Service Computer, represented by N in Figure 8. In the preferred embodiment of the present invention, the Member Personal Computer may take the form of any of several devices, such as, but not limited to stationary personal computers, handheld computers, data-enabled wireless telephones, and networked personal digital assistants. Furthermore, communication may occur over any combination of all available networks, including but not limited to physical analog telephone lines, digital telephone lines, and wireless data transmissions.

Figure 9, depicts primarily the choices presented to the Member when they arrive at the online customer service system home page. In step 580, the Member Access Server Computer (Figure 2, item 225) receives a request from the Member Personal Computer (Figure 2, item 215). The Member Access Server Computer responds in step 585 by sending to the Member Personal Computer, in the form of a hypertext document or as a programmed application interface, the Program Navigation Menu, as illustrated by the seven hyperlinks shown in Figure 21: Home, Login/Logout, Account Status, Activate Account, Search, Redeem Points,

and About. From this menu, the Member may select any of the seven options as required or exit from the application.

In an alternative embodiment of the disclosed invention, this Program Navigation Menu may comprise a fewer or greater number of options as required by the particular program. For example, the electronic bill payment option described above and depicted primarily in Figure 7 may be offered directly through the timely payment rewards program instead of, or in addition to other online services offered by the Creditor, and therefore become listed as an option on the Program Navigation Menu.

It should be noted that in the preferred embodiment of the disclosed invention, the user might backtrack from any particular point in the program. Notably the user is able to return to the selection menu depicted in Figure 20 from any part of the program. Furthermore, the Program Navigation Menu may appear on any or all pages or program interface screens in the application, creating a multiplicity of navigational paths through the application. Thus, a Member could arrive at any of the screens described herein from a selection made on any other screen. This being stated generally, a person skilled in the art will appreciate that these features are applicable to the further program steps of the preferred embodiment described below, and therefore it will not be repeated in the following description.

In Figure 9, step 590, the Member Access Server Computer checks whether the Member has selected the option to view the Program Home Page. If the result of step 590 is positive, the Home Page is sent in step 595 to the Member

Personal Computer (Figure 2, item 215) in a form similar to that depicted in Figure 20. If the result of Figure 9, step 590 is negative, the process proceeds to step 600, which determines whether the Program Description option has been selected.

If the result of Figure 9, step 600 is positive, a description of the timely payment rewards program is sent in step 605 to the Member Personal Computer (Figure 2, item 215). If the result of step 600 is negative, the process proceeds to step 610, which determines whether the Browsing Options option has been selected.

If the result of Figure 9, step 610 is positive, a page displaying the browsing options is sent in step 615 to the Member Personal Computer (Figure 2, item 215). In the preferred embodiment, the capability to locate specific items of interest within the program is enhanced by providing the user with various browsing options, generally presented to the user in the form of hyperlinks, form fields, or icons, or a combination of such presentation elements. For example, the user may choose to search the entire application to locate pages that contain particular keywords. Any conventional search engine may be used for this purpose. Such a search engine can be implemented to accept a Boolean string, or by collecting the user's response to an inquiry set. The fields for the search engine may include, for example, key words, brands, price ranges, product categories, etc. If the result of Figure 9, if step 610 is negative, the process proceeds to step 620, which determines whether the Member Activation option has been selected.

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If the result of Figure 9, step 620 is positive, the process proceeds to C, a reference to the process depicted in Figure 10. Upon completion of that subprocess, it returns at D and returns to the Home Page (step 590). If the result of step 620 is negative, the process proceeds to step 625, which determines whether the Account Status option has been selected.

If the result of Figure 9, step 625 is positive, the process proceeds to E, a reference to the process depicted in Figure 12. Upon completion of that subprocess, it returns at F and returns to the Home Page (step 590). If the result of step 625 is negative, the process proceeds to step 630, which determines whether the Login option has been selected.

If the result of Figure 9, step 630 is positive, the process proceeds to G, a reference to the process depicted in Figure 13. Upon completion of that subprocess, it returns at H and returns to the Home Page (step 590). If the result of step 630 is negative, the process proceeds to step 635, which determines whether the Redemption Program option has been selected.

If the result of Figure 9, step 635 is positive, the process proceeds to I, a reference to the process depicted in Figure 14. Upon completion of that subprocess, it returns at J and returns to the Home Page (step 590). If the result of step 635 is negative, the process proceeds to step 640, which determines whether the Exit option has been selected.

If the result of Figure 9, step 640 is positive, the process terminates at step 645. If the result of step 640 is negative, the process repeats by returning to step 585, which displays the Program Navigation Menu.

1 Server Computer again analyzes the Member Authentication Status (Figure 10, step
2 680). In step 685, the process evaluates whether the Member is now
3 authenticated. If the result of step 685 is negative, the process returns to step
4 665.

5 If the result of Figure 10, step 670 is negative, meaning that the user has
6 not chosen to login, then step 675 evaluates whether the user has selected the
7 option to exit from the account activation process. If the result of step 675 is
8 negative, the process resumes at step 665. If the result of step 675 is positive,
9 the process exits at reference point D to the superior process, depicted in Figure
10 9.

11 The process depicted in Figure 11 describes the method by which a
12 Member activates an Obligation, as enrolled by the Creditor. This sub-process is
13 entered at C.1, a reference to the superior process depicted in Figure 9, the
14 Program Navigation Menu. In Figure 11, step 690, the Member Access Server
15 Computer (Figure 2, item 225) sends a screen to the Member Personal Computer
16 (Figure 2, item 215) displaying the Sub-account Ownership List, in a form similar
17 to that depicted in Figure 23. Figure 11, step 695 evaluates whether the user has
18 selected a sub-account for Activation. If the result of step 695 is negative, then
19 the process proceeds to step 700. If the result of step 695 is positive, then in
20 Figure 11, step 705, the Member Access Server Computer sends to the Member
21 Personal Computer the Sub-account Identification form page, similar to that
22 depicted in Figure 24. Upon receiving the identifier submitted by the user in
23 Figure 11, step 705, the process attempts to confirm ownership of the Sub-account

by the currently authenticated Member (step 710) as recorded in the Member Accounts Database, 230. Confirmation of Sub-account ownership is evaluated in step 715. If the result of step 715 is negative, an error page is displayed, similar to that depicted in Figure 25. If the result of step Figure 11, step 715 is positive, the Member Account is updated (step 720) in the Member Accounts Database, 230, and the process returns to step 690, in which the list of Sub-accounts is re-displayed, reflecting the change in status of the newly activated Sub-account.

The process depicted in Figure 12 describes the process by which a Member inquires as to the status of his or her program account, including such details as the current Points balance and the transactional history of payments and consequential Points awarded. This sub-process is entered at E, a reference to the superior process depicted in Figure 9, the Program Navigation Menu. In Figure 12, step 730, the Member Access Server Computer (Figure 2, item 225) checks the current authentication status of the Member by reading the Member Session State, 502. Step 735 evaluates the results of step 730. If the result of step 735 is positive, indicating that the Member is authenticated, then in Figure 12, step 750, the Account Status page or pages are assembled from the data in the Member Accounts Database, 230, and sent to the Member Personal Computer (Figure 2, item 215) in a form similar to that depicted in Figure 26. If the result of Figure 12, step 735 is negative, indicating that the Member is not authenticated, then the process proceeds at G to the sub-process depicted in Figure 13. After returning from that sub-process at H, the Member's authentication status is evaluated once

Member cancels his or her request to Login to the program, the process returns at H to whichever superior process initiated the request for authentication. If the result of step 785 is negative, meaning that the Member has submitted unique Member identification in the form of a username/membername and password, then at step 790 the process queries the Member Accounts Database 230 to locate a matching Member account. Step 795 evaluates the result of step 790 to determine whether authentication was successful, meaning that the Member Accounts Database does contain a Member account identified by the credentials submitted by the member. If the result of step 795 is negative, then in step 800 the Member Access Server Computer (Figure 2, item 225) causes the Member Personal Computer (Figure 2, item 215) to display an error page, similar to that depicted in Figure 28, after which the process returns to step 780. If the result of step 795 is positive, then in Figure 13, step 805 the Member Access Server Computer sets the Member Session State, 502 to indicate successful authentication. Following step 805, the process returns at H to whichever superior process initiated the authentication request.

Figure 14 depicts the operation of the rewards redemption process. The process begins at I, a reference to the superior process depicted in Figure 9, the Program Navigation Menu. In Figure 14, step 810, the Member Access Server Computer (Figure 2, item 225) checks the Member's authentication status by reading the Member Session State, 502. Step 815 evaluates the result of step 810. If the result of 815 is negative, the process proceeds to G, a reference to the sub-process depicted in Figure 13, Member Authentication. After completing this sub-

process, the present process resumes at Figure 14, H, whereupon, in Figure 14, step 820, the process once again checks the authentication status. Step 825 evaluates the results of this test. If the result of step 825 is negative, then the process returns at J to the superior process depicted in Figure 9. If the result of either authentication test at Figure 14, step 815 or step 825 is positive, then in step 830, the Member Access Server Computer (Figure 2, item 225) causes the Member Personal Computer (Figure 2, item 215) to display the Redemption Program Home page, similar to that depicted in Figure 29.

From the Redemption Program Home page, the Member may select any of five types of options: view products by category, view products by cost category, search products, view a personal wish list, or exit.

If the result of step 835 in Figure 14 is positive, meaning that the Member has chosen to view a list of products belonging to a specific product category, then in step 840 the information about the products in the selected category is retrieved from the Redemption Catalog Database, 240, as indicated by reference Y. If the result of step 835 is negative, then the process proceeds to step 845.

If the result of step Figure 14, 845 is positive, meaning that the Member has chosen to view a list of products belonging to a specific cost category, then in step 850 information is retrieved from the Redemption Catalog Database, 240 (as indicated by reference Y) about the products whose redemption costs, as measured in program Points, lie within the limits of the selected cost category. If the result of step 845 is negative, then the process proceeds to step 855.

1 If the result of Figure 14, step 855 is positive, meaning that the Member
2 has chosen to search the Redemption Catalog for products according to any of
3 several criteria, including, for example, keywords or prices, then in step 860
4 information is retrieved from the Redemption Catalog Database, 240 (as indicated
5 by reference Y) about the products that match the criteria specified by the
6 Member. If the result of step 865 is negative, then the process proceeds to step
7 865.

8 If the result of Figure 14, step 875 is positive, meaning that the Member
9 has chosen to view a list of the products previously selected for inclusion on his
10 or her Wish List, then in step 870, information is retrieved from the Member
11 Account Database, 230 (as indicated by reference X) which is used in turn to
12 retrieve information from the Redemption Catalog Database, 240 (as indicated by
13 reference Y) about those products belonging to the Member's Wish List. If the
14 result of step 865 is negative, then the process proceeds to step 875.

15 If the result of Figure 14, step 875 is positive, meaning that the Member
16 has chosen to exit the Redemption Program, then the process returns at J to the
17 superior process depicted in Figure 9, the Program Navigation Menu. If the result
18 of step 875 is negative, the process repeats at step 830.

19 With further reference to Figure 14, after retrieving and collating the
20 appropriate product data in any of the steps 840, 850, 860, or 870, the Member
21 Access Server Computer (Figure 2, item 225) causes the Member Personal
22 Computer (Figure 2, item 215) in Figure 14, step 880, to display the Products List
23 page, similar to that depicted in Figure 30.

1 In Figure 14, step 885, the Member Access Server Computer (Figure 2,
2 item 225) determines whether the member has selected exit. If the result of step
3 885 is positive, the process returns to step 830. If the result of step 885 is
4 negative, the process continues to step 890.

5 In Figure 14, step 890, the Member Access Server Computer (Figure 2,
6 item 225) determines whether a product has been selected from the Product Listing
7 page (Figure 30). If the result is negative, the process repeats by returning to
8 step 880 to await further member input. If the result is positive, the process
9 proceeds to I.1, a reference to the sub-process depicted in Figure 15. After
10 completing the sub-process, the process depicted in Figure 14 continues at J.1, and
11 returns to Figure 14, step 880 to await further member input.

12 Figure 15 depicts a process by which a Member may redeem accrued points
13 for specific products in the Redemption Catalog, or may add those products to his
14 or her Wish List for alter redemption. Upon invocation at I. 1, a reference to the
15 superior process depicted in Figure 14, the Member Access Server Computer
16 (Figure 2, item 225) causes the Member Personal Computer (Figure 2, item 215)
17 to display the Detailed Product Description Page, similar to that depicted in Figure
18 31. The Detailed Product page displays at least three specific options: (1) "Order
19 This Item," (2) "Add This Item to My Wish List," or (2) "Back to Products." If
20 the member arrives at the Detailed Product page by from his or her Wish List,
21 then the option to "Add This Item to My Wish List" will be replaced by the
22 option to "Remove This Item from My Wish List," as depicted in Figure 32.
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1 Figure 15, Step 900 evaluates whether the Member has selected the option
2 to order by redeeming his or her accumulated Points. If the result of step 900
3 is positive, then in step 915 the Member's Points balance is compared to the
4 Points cost of the selected catalog item. In step 920, the process evaluates
5 whether the Member possesses sufficient Points to redeem them for the item. If
6 the result of step 920 is negative, the Member Access Server Computer causes the
7 Member Personal Computer to display an error page indicating the additional
8 number of Points needed to obtain the item, in a form similar to that depicted in
9 Figure 34. If the result of Figure 15, step 920 is positive, then in step 925 the
10 Member's account is updated in the Member Accounts Database, 230, by deducting
11 the required points from the account's Points balance.

12 It should be noted that if the result of Figure 15, step 920 is positive,
13 meaning that the Member has sufficient points to complete the redemption, the
14 selected redemption product may be automatically read into the following steps for
15 processing. However, the Member may also be prompted to verify that this is the
16 correct item for which he or she wishes to redeem his or her points, and to for
17 additional information necessary to complete the order, such as color , size, etc.

18 In Figure 15, step 930, an order, 935, is transmitted to the product
19 fulfillment house. In step 940, the Member Access Server Computer causes the
20 Member Personal Computer to display an Order Confirmation Page, similar to that
21 depicted in Figure 33. In Figure 15, step 945, the Redemption Order is recorded
22 in the Redemption Order Database, 255, and the process returns to the superior
23 process depicted in Figure 14, as indicated in Figure 15 by reference J.1.

1 If the result of Figure 15, step 900, is negative, meaning that the member
2 has not selected the product for redemption, then step 955 evaluates whether the
3 member has selected the option to add the product to his or her Wish List. If
4 the result of step 955 is positive, then in 960, the product is added to the
5 Member's Wish List by updating the Member Accounts Database, 230. After
6 completion of step 960, the process returns to the superior process depicted in
7 Figure 14, as indicated in Figure 15 by reference J.1.

8 If the result of Figure 15, step 955 is negative, meaning that the member
9 has not selected the option to add the product to his or her Wish List, then step
10 965 evaluates whether the member has selected the exit option. If the result of
11 step 965 is negative, then the process repeats at step 895. If the result of step
12 965 is positive, then the process returns to the superior process depicted in Figure
13 14, as indicated in Figure 15 by reference J.1.

14 In the description of the preferred embodiment, the term user or Member
15 also refers to merchants, product manufacturers, award program administrators, and
16 multiple other potential users or members. These particular users may be provided
17 with a special access code. Upon entering the special code and associated
18 password, any of these particular users may be provided with privileged access to
19 the program, allowing them to make limited changes to the data. Thus, for
20 example, a program administrator may gain privileged access to add or remove
21 redemption products from the Redemption Catalog Database (Figure 2, item 240).
22 In addition, in the preferred embodiment a report is generated upon each
23 privileged entry so that the changes made can be monitored.

1 Certain variations would be apparent to those skilled in the art, which
2 variations are considered within the spirit and scope of the claimed invention.

3 As will be appreciated by those of reasonable skill in the art, there are
4 numerous embodiments to this invention, and variations of elements and
5 components which may be used, all within the scope of this invention.

6 One embodiment of this invention for example is a method for
7 implementing an on-line incentive program for members who are making
8 installment payments, said method comprising the steps of: providing an Internet
9 webpage accessible to at least a member, via a computer system, for on-line
10 interactive communications between said member and said Internet webpage;
11 offering, on said Internet webpage, installment payment schedule information to
12 said member; determining whether said member qualifies for one or more award
13 points based on said member making one or more timely installment payment;
14 calculating said award points according to a preprogrammed formula if said
15 member qualifies for said award points; and issuing said award points to an
16 account of the member if the member qualifies for said award points, wherein said
17 award points are redeemable by the member for an award.

18 A further method embodiment for implementing an on-line incentive
19 program for members who are making installment payments as recited above, said
20 method further including the step of offering, on said Internet webpage, electronic
21 installment payment capability to said member.

22 Another embodiment of a method for redeeming incentive awards in an
23 on-line incentive program, may be the method of: implementing an on-line

1 incentive program that issues award points to members who are making installment
2 payments, wherein said award points are redeemable by said members for an
3 award; implementing an Internet webpage accessible, via a computer system, to
4 at least one member of said on-line incentive program for on-line interactive
5 communications between said member and said Internet webpage; offering,
6 accessible from or on said Internet webpage, at least one redeemable award
7 available to said member for exchange of said award points; and permitting said
8 member to initiate a process to receive said at least one redeemable award for
9 exchange of said award points issued to said member through said on-line
10 incentive program.

11 Another embodiment of this invention is a computer readable medium
12 comprising a plurality of instructions, which when executed by a computer, causes
13 the computer to perform the steps of: providing an Internet webpage accessible to
14 at least one member, via a computer system, for on-line interactive
15 communications between said member and said Internet webpage; offering, on said
16 Internet webpage, installment payment schedule information to said member;
17 determining whether said member qualifies for one or more award points based
18 on said member making one or more timely installment payments; calculating
19 said award points according to a pre-programmed formula if said member qualifies
20 for said award points; and issuing said award points to an account of said member
21 if said member qualifies for said award points, wherein said award points are
22 redeemable by said member for an award. A further embodiment would be the
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1 foregoing plus the step of offering, on said Internet webpage, electronic installment
2 payment capability to said member.

3 In yet another embodiment of the invention, a computer readable medium
4 may be provided which comprises a plurality of instructions, which when executed
5 by a computer, causes the computer to perform the steps of: implementing an on-
6 line that issues award points to members wherein said award points are redeemable
7 by said member for an award; providing an Internet webpage accessible to at
8 least one member, via a computer system, for on-line interactive communications
9 between said member and said Internet webpage; offering, on said Internet
10 webpage, installment payment schedule information to said member; determining
11 whether said member qualifies for one or more award points based on said
12 member making one or more timely installment payments; calculating said award
13 points according to a preprogrammed formula if said member qualifies for said
14 award points; and issuing said award points to an account of said member if said
15 member qualifies for said award points, wherein said award points are redeemable
16 by said member for an award.

17 The invention may also be embodied in a computer system for
18 implementing an on-line incentive program, said computer system comprising:
19 software for offering at least one product for sale to at least one member via an
20 Internet webpage, said Internet webpage being accessible to said member for on-
21 line interactive communications between said member and said Internet webpage;
22 and software for determining whether said member qualifies for one or more
23 award points based on said member making one or more timely installment

1 payments, for calculating said award points according to a preprogrammed formula
2 if said member qualifies for said award points, and for issuing said award points
3 to an account of said member if said member qualifies for said award points,
4 wherein said award points are redeemable by said member for an award.

5 In compliance with the statute, the invention has been described in language
6 more or less specific as to structural and methodical features. It is to be
7 understood, however, that the invention is not limited to the specific features
8 shown and described, since the means herein disclosed comprise preferred forms
9 of putting the invention into effect. The invention is, therefore, claimed in any
10 of its forms or modifications within the proper scope of the appended claims
11 appropriately interpreted in accordance with the doctrine of equivalents.
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